

United States Patent [19]**Daussan et al.**[11] **Patent Number:** **4,544,409**[45] **Date of Patent:** **Oct. 1, 1985**

[54] **COATING FOR PROTECTING
CONSTRUCTIONS, PARTICULARLY
AGAINST HEAT AND FIRE**

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Related U.S. Application Data

[63] Continuation of Ser. No. 448,192, Dec. 9, 1982, abandoned, which is a continuation-in-part of Ser. No. 230,963, Jun. 4, 1980, abandoned.

[30] Foreign Application Priority Data

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106/99; 106/104; 252/62

[58] **Field of Search** 106/18.14, 89, 99, 104;
252/62

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[57] ABSTRACT

A coating for protecting constructions against fire and heat, comprises 10 to 80% by weight of aluminous and/or Portland cement and 5 to 20% by weight of hydrated trisodium phosphate ($\text{Na}_3\text{PO}_4 \cdot 12\text{H}_2\text{O}$). A small but effective amount of a flux can be included, which can be calcium borate and/or fluorspar, the amount being effective to assure superficial sintering of the refractory particles at a temperature between 850° and 900° C. This temperature range is selected because if sintering takes place below 850° C., the cracks which form in the coating are filled too soon by fusion of the inorganic particles under the action of the flux; while if sintering takes place above 900° C., the coating becomes detached from the supporting surface because the binder loses all of its adhesive power. The coating can also include inorganic particles, e.g. alumina, sand, perlite and/or vermiculite, and also organic particles.

4 Claims, No Drawings